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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/641,595	08/18/2000	Michael Zimmer	JFH-A12898US	6641

24314 7590 10/08/2002

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EXAMINER

PARKER, FREDERICK JOHN

ART UNIT	PAPER NUMBER
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1762

15

DATE MAILED: 10/08/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

Applicant(s)

09/641,595

Examiner

Group Art Unit

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- ☒ Responsive to communication(s) filed on 9/3/02
- ☐ This action is FINAL.
- ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 26-45 is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 26-45 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☐ All ☐ Some* ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
- ☐ Certified copies of the priority documents have been received in Application No. _____
- ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

Office Action Summary

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DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Applicant's submission filed on 9/03/02 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 26,39,43 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The original claims and specification provide no support for applying toner particles **directly** onto the thermoplastic materials. There is nothing to

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prohibit intervening layers. There is no citation provided by Applicants which directs the Examiner to support.

4. Claims 26,39,43 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The original claims and specification provide no support for the limitation **"whereby the thermoplastic material and toner to form a single unsupported layer"**. There is no citation provided by Applicants which directs the Examiner to support, as stated in the Examiner's Advisory Action.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 26,38,39,43 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- Claims 26,39,43 are vague and indefinite because the meaning of the phrase "whereby the thermoplastic material and toner to form a single unsupported

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layer" is unclear; the meaning of unsupported is unclear in context and is undefined by the specification.

- Claim 38 is vague and indefinite because it requires molding the thermoplastic material whereas claim 26 on which it depends requires "extruding" the thermoplastic material, which are different forming processes.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

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4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
9. Claims 26-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over G.B. 1 264 494 in view of Brinkmann et al. US 4140463.

G.B. 1 264 494 discloses an electrophotographic printing process (= electrostatic) for applying toner comprised of a pigment (=coloring agent) and thermoplastic binder onto a softened thermoplastic foil substrate so that the toner image penetrates and becomes fixed to the surface of the substrate. No intervening layer appears to be present. The use of a dielectric loss material in toner to cause its melting and adhesion to a substrate is also taught (page 1, 12-20 & 62-84). The printed products would reasonably be called a single unsupported layer in view of the statement the toner becomes fixed "in the substrate" (= "sinks into the surface"), column 1, 20. In view of the reference, one of ordinary skill would have recognized the various permutations of causing bonding of the toner to the substrate, including using the same thermoplastic for toner and substrate per claim 42; heating either toner or substrate via heating from the other, etc. Extruded thermoplastic foil substrates is not taught. Brinkmann et al teaches on column 1, 19-26 and col. 2, 7-20 that it is known to form thermoplastic foil by extrusion, hence it would have been obvious to one

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of ordinary skill in the art at the time the invention was made to carry out the method of G.B. 1264494 on the extruded thermoplastic foil material of Brinkmann et al because of the expectation of producing the same or similar results, e.g. toner printing on the thermoplastic foils, since manner of forming the foils would not have been expected to produce dissimilar printing results.

As to claim 27, it would have been an obvious variation to bring only a surface portion of a substrate into a reactive/ bonding state to prevent the object from melting or deforming.

10. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over G.B. 1 264 494 in view of Brinkmann et al. US 4140463 and further in view of Vetter US 4162884.

G.B. 1 264 494 and Brinkmann et al are cited for the same reasons discussed above, which are incorporated herein. Use of molded thermoplastic foil is not cited. However, Vetter teaches that plastic thermoplastic foils are formed by molding (col. 1, 16-22, etc). Since one of ordinary skill would have expected the same or similar toner printing results for the thermoplastic foils, whether they be molded or extruded, it would have been obvious to substitute the molded thermoplastic foil of Vetter for the extruded foil of Brinkmann et al in the process


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of G.B. 1 264 494 because of the expectation of the same or similar toner printing results.

11. Claims 39-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over G.B. 1 264 494 in view of Vetter US 4162884.

The references are used for the same reasons discussed above. Succinctly, given the teachings of the toner printing onto the surface of the thermoplastic foil of the primary reference, it would have been an obvious variation to use the molded thermoplastic foil of Vetter because of the expectation of producing the same or similar results, e.g. toner printing on the thermoplastic foils, since manner of forming the foils would not have been expected to produce dissimilar printing results.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred J. Parker whose telephone number is (703) 308-3474.


Fred J. Parker
September 17, 2002
rce9-941595

FRED J. PARKER
PRIMARY EXAMINER